



Setting the **Standard** for **Shielding**.™

MS On-Board / Online Catalog 2021

NextGen Shields 5G-Enabled.



Search across hundreds of EMI/RFI Shields
Enjoy Utmost-Flexibility in Design

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Setting the Standard for Shielding.™



Masach™ brings twenty five years of know-how and expertise into every standard shield produced. Our ever-growing selection of standard EMI/RFI shields is the largest in the industry, saving our customers precious time and money while catering to the electronic industry's growing high frequency and RF applications. With emphasis on technology and design, Masach™ drawn EMI/RFI shields boast top performance across the metrics, featuring a seamless protective cage, robust construction, optimal planarity and two-piece shield design.



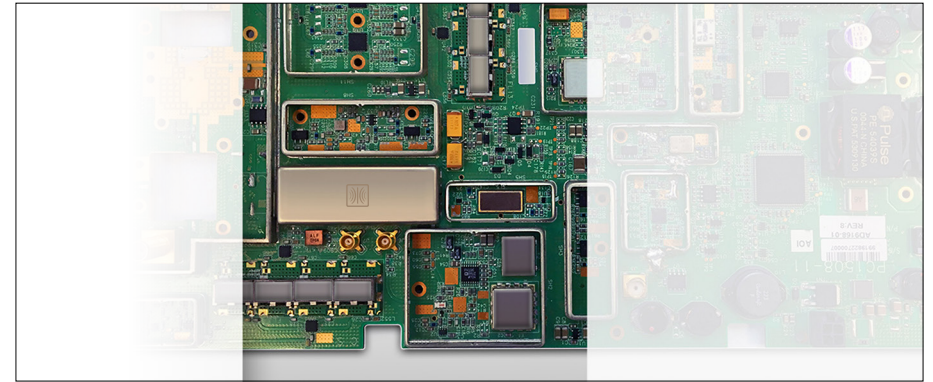
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Whatever your EMI/RFI challenge..



Introduction



Masach™ specializes in board level EMI/RFI shielding design and production for small, medium and large scale runs. Founded in 1994, Masach™ is a globally recognized and leading supplier of some of the world's largest electronic companies, driven by highest quality customer service with uncompromised product performance.

Every step of the production cycle, from raw materials and design to packaging and shipping, is meticulously executed under one roof leveraging dedicated hydraulic presses, cutting-edge tool room assemblies, forming operations and more.

Masach™ utilizes the latest laser technology to deliver most advanced 3D cutting of formed or bent shields made of thin gage materials, CNC punching and more. We remain committed to meet the needs of every industry – from telecommunications and network equipment to military and medical – with the right board level EMI/RFI shielding solution for every challenge.

Hermetically Sealed EMI/RFI Shields



High Performance EMI/RFI Shields

Exclusive, Seamless EMI/RFI shields for a higher level of protection

[LEARN MORE](#)

A higher level of protection



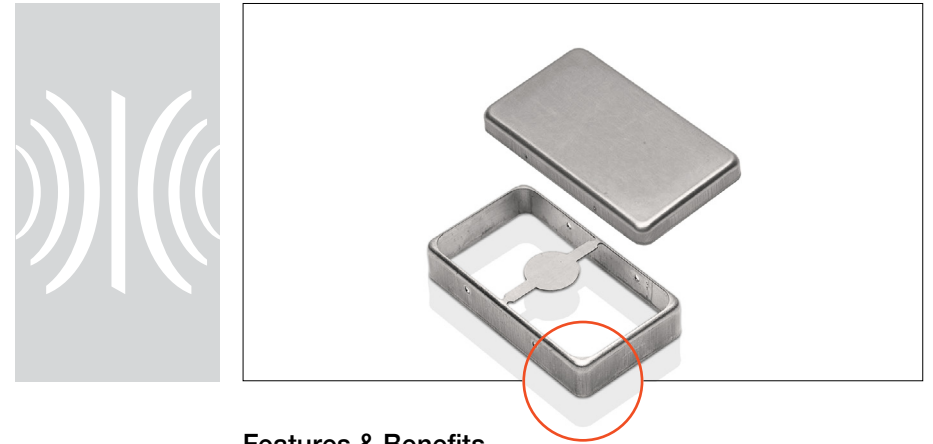
EMI/RFI engineers prefer hermetically sealed shields at high frequencies due their superior performance over time. Designed for highest shielding performance leveraging a unique hermetic design and fabrication process, Masach™ seamless protective cages are in a class of their own.

Most conventional shields are produced by bending the frames and covers, leaving slits for dust and interference. Masach™ unique fabrication process utilizes drawn frames and snap on covers to produce a seamless, more hermetic shield that is as durable as it is effective.

Featuring a convenient two-piece design, our shields enable to inspect and repair shielded components without having to remove the entire shield. Masach™ shields are known for their planarity, offering optimal yield of reflow soldering for even better overall performance.

Our ever-growing selection of EMI/RFI hermetically sealed shields are suitable to small, medium and large-scale runs.

Seamless Protective Cage!

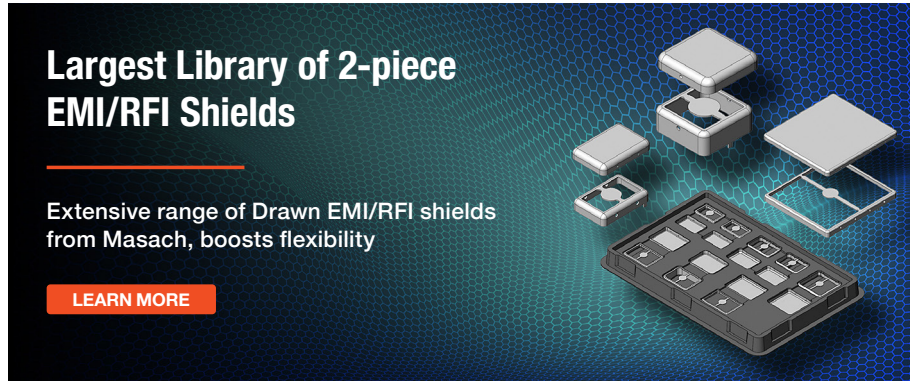


Features & Benefits



- **Seamless Protective Cage** for higher shielding effectiveness
- **Optimal Planarity** for higher yield on reflow soldering
- **Solid Construction** to resist dents and warps
- **Two-piece Shield Design** enables to repair components without removing the shield, saving time and reducing repair damage

Largest Selection in the Industry



Largest Library of 2-piece EMI/RFI Shields

Extensive range of Drawn EMI/RFI shields from Masach, boosts flexibility

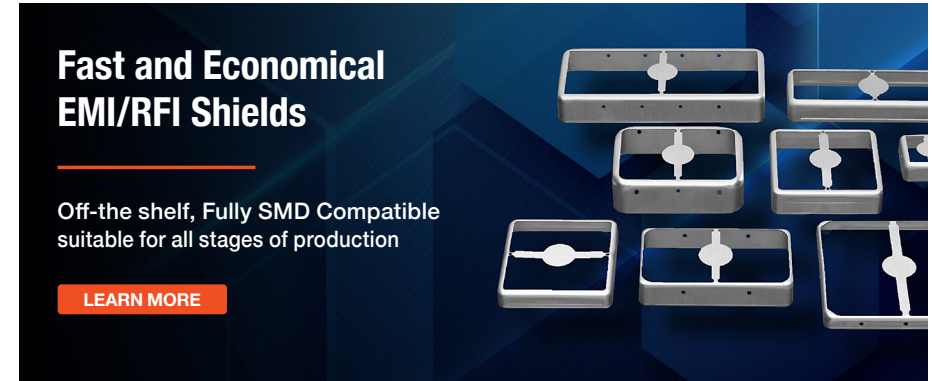
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Enjoy our extensive range of drawn shields for utmost flexibility in design



Masach™ offers the largest selection of standard drawn EMI/RFI shields in the electronics industry. Our ever-growing range of sizes delivers more flexibility in surface mount configurations where interference may occur or is identified during the board design phase. The highly reliable two-piece design (frame and cover) accommodates virtually any surface mount application.

Fast and Economical Approach



Fast and Economical EMI/RFI Shields

Off-the shelf, Fully SMD Compatible suitable for all stages of production

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Shorter engineering design time, lower product cost and quicker time to market



[BUY NOW](#)

Masach™ standard shields saves on custom design costs, doing away with the need to produce expensive prototypes for evaluation, as well as significantly reduces delivery times. Our standard drawn EMI/RFI shields consist of tin-plated steel alloys, commonly used for board-level shielding due to their exceptional mechanical formability, environmental compliance, and relative low cost.

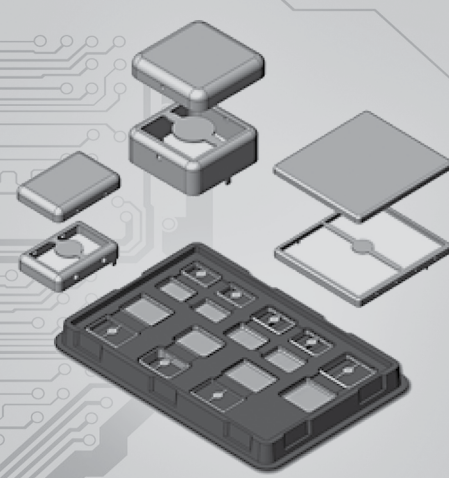
Engineers taking part in the board design phase can take advantage of the information concerning all mechanical aspects of Masach™ shields, conveniently available for download (PDF datasheets and CAD files), from the website product page.

We offer the largest selection of standard EMI/RFI shields in the industry!

Pick-out your next EMI/RFI Shield >>

Stay updated. View our Online Catalog @ www.masach.com

 Download your **free CAD file** **OrderOnline**



 If you cannot find a standard shield according to your requirements, please contact us @ info@masach.com and we will make the adjustments or find a suitable solution for your specific needs.

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS087-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	9.3	6.9	2.7
MS087-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	8.7	6.3	3
MS087-10S	1-piece EMI/RFI Shield	Tin-Steel	8.7	6.3	3
MS093-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	9.7	9.7	3
MS093-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	9.3	9.3	5
MS093-10S	1-piece EMI/RFI Shield	Tin-Steel	9.3	9.3	5
MS102-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	10.8	6.6	3
MS102-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	10.2	6	3
MS102-10S	1-piece EMI/RFI Shield	Tin-Steel	10.2	6	3
MS108-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	11.2	7.8	2
MS108-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	10.8	7.4	2
MS108-10S	1-piece EMI/RFI Shield	Tin-Steel	10.8	7.4	2
MS110-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	11.6	11.6	2.8
MS110-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	11	11	2.8
MS110-10S	1-piece EMI/RFI Shield	Tin-Steel	11	11	2.8
MS110-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	11.6	11.6	2.8
MS110-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	11	11	6
MS110-20S	1-piece EMI/RFI Shield	Tin-Steel	11	11	6
MS128-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	13.2	12.7	3.5
MS128-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	12.8	12.3	7.5
MS128-10S	1-piece EMI/RFI Shield	Tin-Steel	12.8	12.3	7.5
MS130-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	13.6	13.6	3
MS130-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	13	13	5
MS130-10S	1-piece EMI/RFI Shield	Tin-Steel	13	13	5
MS135-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	14.1	14.1	3
MS135-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	13.5	13.5	5
MS135-20S	1-piece EMI/RFI Shield	Tin-Steel	13.5	13.5	5
MS148-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	15.2	9.3	2
MS148-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	14.8	8.9	2

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS148-10S	1-piece EMI/RFI Shield	Tin-Steel	14.8	8.9	2
MS156-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	16	11	2.6
MS156-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	15.6	10.6	3
MS156-10S	1-piece EMI/RFI Shield	Tin-Steel	15.6	10.6	3
MS168-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	17.2	13.9	3
MS168-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	16.8	13.5	5
MS168-10S	1-piece EMI/RFI Shield	Tin-Steel	16.8	13.5	5
MS183-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	18.9	11.1	3
MS183-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	18.3	10.5	3
MS183-10S	1-piece EMI/RFI Shield	Tin-Steel	18.3	10.5	3
MS190-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	19.4	14.3	1.7
MS190-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	19	13.9	2
MS190-10S	1-piece EMI/RFI Shield	Tin-Steel	19	13.9	2
MS191-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	19.7	18.8	3.5
MS191-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	19.1	18.2	5
MS191-10S	1-piece EMI/RFI Shield	Tin-Steel	19.1	18.2	5
MS193-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	19.9	11.1	2.7
MS193-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	19.3	10.5	3
MS193-10S	1-piece EMI/RFI Shield	Tin-Steel	19.3	10.5	3
MS193-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	19.9	18.9	3
MS193-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	19.3	18.3	3.5
MS193-20S	1-piece EMI/RFI Shield	Tin-Steel	19.3	18.3	3.5
MS206-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	21.2	18.4	2.7
MS206-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	20.6	17.8	3
MS206-10S	1-piece EMI/RFI Shield	Tin-Steel	20.6	17.8	3
MS209-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	21.3	15.7	1.7
MS209-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	20.9	15.3	1.7
MS209-10S	1-piece EMI/RFI Shield	Tin-Steel	20.9	15.3	1.7
MS209-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	21.3	15.7	1.7

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS209-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	20.9	15.3	2
MS209-20S	1-piece EMI/RFI Shield	Tin-Steel	20.9	15.3	2
MS210-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	21.6	12.6	4
MS210-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	21	12	5
MS210-10S	1-piece EMI/RFI Shield	Tin-Steel	21	12	5
MS213-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	21.7	20.3	2.5
MS213-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	21.7	20.3	2.5
MS213-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	21.3	19.9	2.9
MS213-10S	1-piece EMI/RFI Shield	Tin-Steel	21.3	19.9	2.9
MS220-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	22.6	19.9	3
MS220-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	22.6	19.9	3
MS220-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	22	19.3	3.3
MS220-10S	1-piece EMI/RFI Shield	Tin-Steel	22	19.3	3.3
MS220-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	22.4	18.1	3
MS220-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	22	17.7	3
MS220-20S	1-piece EMI/RFI Shield	Tin-Steel	22	17.7	3
MS220-30C	2-piece EMI/RFI Shield COVER	Tin-Steel	22.6	11.9	2.8
MS220-30CP	2-piece EMI/RFI Shield COVER	Tin-Steel	22.6	11.9	2.8
MS220-30F	2-piece EMI/RFI Shield FRAME	Tin-Steel	22	11.3	2.8
MS220-30S	1-piece EMI/RFI Shield	Tin-Steel	22	11.3	2.8
MS220-40C	2-piece EMI/RFI Shield COVER	Tin-Steel	22.6	11.9	2.8
MS220-40CP	2-piece EMI/RFI Shield COVER	Tin-Steel	22.6	11.9	2.8
MS220-40F	2-piece EMI/RFI Shield FRAME	Tin-Steel	22	11.3	7
MS220-40S	1-piece EMI/RFI Shield	Tin-Steel	22	11.3	7
MS223-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	22.7	17.7	4
MS223-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	22.3	17.3	3.3
MS223-10S	1-piece EMI/RFI Shield	Tin-Steel	22.3	17.3	5
MS226-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	23	17.5	2
MS226-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	22.6	17.1	2

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS226-10S	1-piece EMI/RFI Shield	Tin-Steel	22.6	17.1	2
MS230-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	23.6	12.3	3
MS230-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	23	11.7	5
MS230-10S	1-piece EMI/RFI Shield	Tin-Steel	23	11.7	5
MS233-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	23.7	17.9	2.8
MS233-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	23.3	17.5	5
MS233-10S	1-piece EMI/RFI Shield	Tin-Steel	23.3	17.5	3.3
MS233-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	23.7	14.9	3
MS233-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	23.3	14.5	3
MS233-20S	1-piece EMI/RFI Shield	Tin-Steel	23.3	14.5	3
MS250-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	25.6	21.6	3
MS250-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	25	21	4
MS250-10S	1-piece EMI/RFI Shield	Tin-Steel	25	21	4
MS256-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	26	15.9	2.3
MS256-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	25.6	15.5	2.3
MS256-10S	1-piece EMI/RFI Shield	Tin-Steel	25.6	15.5	2.3
MS257-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	26.3	26.3	4
MS257-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	25.7	25.7	6.5
MS257-10S	1-piece EMI/RFI Shield	Tin-Steel	25.7	25.7	6.5
MS259-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	26.3	26.3	3
MS259-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	25.9	25.9	3
MS259-10S	1-piece EMI/RFI Shield	Tin-Steel	25.9	25.9	3
MS260-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	26.6	23.6	4
MS260-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	26.6	23.6	4
MS260-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	26	23	7.8
MS260-10S	1-piece EMI/RFI Shield	Tin-Steel	26	23	7.8
MS263-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	26.9	17.4	4
MS263-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	26.9	17.4	4
MS263-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	26.3	16.8	4.5

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS263-10S	1-piece EMI/RFI Shield	Tin-Steel	26.3	16.8	4.5
MS263-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	26.9	20.4	3.7
MS263-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	26.3	19.8	8.1
MS263-20S	1-piece EMI/RFI Shield	Tin-Steel	26.3	19.8	8.1
MS268-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	27.4	16.2	2.5
MS268-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	26.8	15.6	2.5
MS268-10S	1-piece EMI/RFI Shield	Tin-Steel	26.8	15.6	2.5
MS268-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	27.4	16.2	2.5
MS268-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	26.8	15.6	4
MS268-20S	1-piece EMI/RFI Shield	Tin-Steel	26.8	15.6	4
MS270-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	27.6	20.6	3.5
MS270-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	27	20	6
MS270-10S	1-piece EMI/RFI Shield	Tin-Steel	27	20	6
MS288-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	29.4	20	4
MS288-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	28.8	19.4	5
MS288-10S	1-piece EMI/RFI Shield	Tin-Steel	28.8	19.4	5
MS290-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	29.6	26.6	2.9
MS290-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	29	26	3
MS290-10S	1-piece EMI/RFI Shield	Tin-Steel	29	26	3
MS293-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	29.9	25.9	4
MS293-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	29.3	25.3	6.4
MS293-10S	1-piece EMI/RFI Shield	Tin-Steel	29.3	25.3	6.4
MS293-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	29.9	16.9	3.5
MS293-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	29.3	16.3	9.7
MS293-20S	1-piece EMI/RFI Shield	Tin-Steel	29.3	16.3	9.7
MS300-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	30.6	25	3
MS300-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	30	24.4	3.5
MS300-10S	1-piece EMI/RFI Shield	Tin-Steel	30	24.4	3.5
MS302-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	30.8	19.5	2.7

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS302-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	30.2	18.9	3
MS302-10S	1-piece EMI/RFI Shield	Tin-Steel	30.2	18.9	3
MS308-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	31.4	18.4	4.4
MS308-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	30.8	17.8	4.4
MS308-10S	1-piece EMI/RFI Shield	Tin-Steel	30.8	17.8	4.4
MS310-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	31.6	17.7	2.7
MS310-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	31	17.1	3
MS310-10S	1-piece EMI/RFI Shield	Tin-Steel	31	17.1	3
MS312-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	31.8	30.6	4
MS312-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	31.2	30	5
MS312-10S	1-piece EMI/RFI Shield	Tin-Steel	31.2	30	5
MS320-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	32.4	11.7	2
MS320-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	32	11.3	2
MS320-10S	1-piece EMI/RFI Shield	Tin-Steel	32	11.3	2
MS321-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	32.5	17	2.2
MS321-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	32.1	16.6	2.5
MS321-10S	1-piece EMI/RFI Shield	Tin-Steel	32.1	16.6	2.5
MS323-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	32.9	24.4	4
MS323-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	32.9	24.4	4
MS323-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	32.3	23.8	3.7
MS323-10S	1-piece EMI/RFI Shield	Tin-Steel	32.3	23.8	3.7
MS323-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	32.9	24.4	4
MS323-20CP	2-piece EMI/RFI Shield COVER	Tin-Steel	32.9	24.4	4
MS323-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	32.3	23.8	4.7
MS323-20S	1-piece EMI/RFI Shield	Tin-Steel	32.3	23.8	4.7
MS323-30C	2-piece EMI/RFI Shield COVER	Tin-Steel	32.9	24.4	4
MS323-30CP	2-piece EMI/RFI Shield COVER	Tin-Steel	32.9	24.4	4
MS323-30F	2-piece EMI/RFI Shield FRAME	Tin-Steel	32.3	23.8	9
MS323-30S	1-piece EMI/RFI Shield	Tin-Steel	32.3	23.8	9

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS329-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	33.3	21.1	2.2
MS329-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	32.9	20.7	2.5
MS329-10S	1-piece EMI/RFI Shield	Tin-Steel	32.9	20.7	2.5
MS333-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	33.9	13.9	3.5
MS333-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	33.3	13.3	4.4
MS333-10S	1-piece EMI/RFI Shield	Tin-Steel	33.3	13.3	4.4
MS338-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	34.2	30.7	3.2
MS338-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	33.8	30.3	3.3
MS338-10S	1-piece EMI/RFI Shield	Tin-Steel	33.8	30.3	3.3
MS345-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	35.1	23.9	3.3
MS345-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	35.1	23.9	3.3
MS345-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	34.5	23.3	3.5
MS345-10S	1-piece EMI/RFI Shield	Tin-Steel	34.5	23.3	3.5
MS345-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	35.1	22.1	2.8
MS345-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	34.5	21.5	3.2
MS345-20S	1-piece EMI/RFI Shield	Tin-Steel	34.5	21.5	3.2
MS353-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	35.7	20.4	3.5
MS353-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	35.3	20	6.4
MS353-10S	1-piece EMI/RFI Shield	Tin-Steel	35.3	20	6.4
MS353-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	35.7	22.7	3.5
MS353-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	35.3	22.3	6.4
MS353-20S	1-piece EMI/RFI Shield	Tin-Steel	35.3	22.3	6.4
MS355-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	36.1	19.6	3.8
MS355-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	35.5	19	5.5
MS355-10S	1-piece EMI/RFI Shield	Tin-Steel	35.5	19	5.5
MS366-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	37	34.5	2.8
MS366-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	36.6	34.1	3.3
MS366-10S	1-piece EMI/RFI Shield	Tin-Steel	36.6	34.1	3.3
MS375-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	38.1	29.9	3.8

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS375-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	37.5	29.3	6.5
MS375-10S	1-piece EMI/RFI Shield	Tin-Steel	37.5	29.3	6.5
MS378-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	38.4	22.2	2.7
MS378-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	37.8	21.6	3
MS378-10S	1-piece EMI/RFI Shield	Tin-Steel	37.8	21.6	3
MS378-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	38.4	15.7	3.1
MS378-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	37.8	15.1	3.7
MS378-20S	1-piece EMI/RFI Shield	Tin-Steel	37.8	15.1	3.7
MS382-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	38.8	33.9	3
MS382-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	38.2	33.3	5
MS382-10S	1-piece EMI/RFI Shield	Tin-Steel	38.2	33.3	5
MS384-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	39	38.2	4
MS384-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	38.4	37.6	11
MS384-10S	1-piece EMI/RFI Shield	Tin-Steel	38.4	37.6	11
MS400-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	40.6	18.9	3
MS400-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	40	18.3	4
MS400-10S	1-piece EMI/RFI Shield	Tin-Steel	40	18.3	4
MS402-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	40.8	35.2	3.5
MS402-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	40.2	34.6	5.3
MS402-10S	1-piece EMI/RFI Shield	Tin-Steel	40.2	34.6	5.3
MS405-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	41.1	19.5	2.8
MS405-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	40.5	18.9	2.8
MS405-10S	1-piece EMI/RFI Shield	Tin-Steel	40.5	18.9	2.8
MS409-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	41.3	21.9	2.4
MS409-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	40.9	21.5	2.5
MS409-10S	1-piece EMI/RFI Shield	Tin-Steel	40.9	21.5	2.5
MS410-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	41.6	27	3.1
MS410-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	41	26.4	3.7
MS410-10S	1-piece EMI/RFI Shield	Tin-Steel	41	26.4	3.7

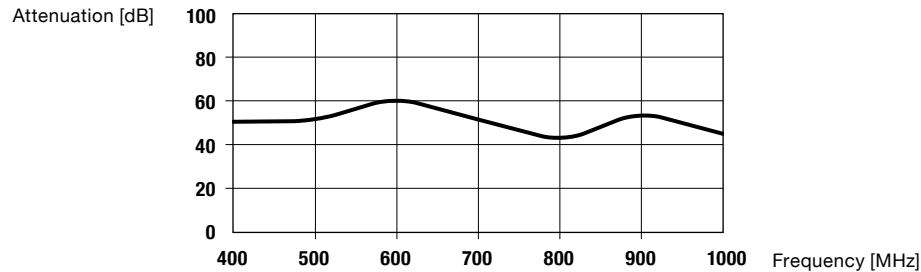
MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS412-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	41.8	14.2	3.2
MS412-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	41.2	13.6	5.1
MS412-10S	1-piece EMI/RFI Shield	Tin-Steel	41.2	13.6	5.1
MS415-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	42.1	17.4	4
MS415-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	41.5	16.8	6.8
MS415-10S	1-piece EMI/RFI Shield	Tin-Steel	41.5	16.8	6.8
MS415-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	42.1	27.1	5
MS415-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	41.5	26.5	9.5
MS415-20S	1-piece EMI/RFI Shield	Tin-Steel	41.5	26.5	9.5
MS423-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	42.9	15.9	3.5
MS423-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	42.3	15.3	4.4
MS423-10S	1-piece EMI/RFI Shield	Tin-Steel	42.3	15.3	4.4
MS434-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	44	29	3.1
MS434-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	43.4	28.4	3.3
MS434-10S	1-piece EMI/RFI Shield	Tin-Steel	43.4	28.4	3.3
MS448-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	45.2	18.6	2.8
MS448-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	44.8	18.2	3
MS448-10S	1-piece EMI/RFI Shield	Tin-Steel	44.8	18.2	3
MS448-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	45.2	18.6	2.8
MS448-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	44.8	18.2	5.7
MS448-20S	1-piece EMI/RFI Shield	Tin-Steel	44.8	18.2	5.7
MS453-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	45.9	16.8	2.9
MS453-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	45.3	16.2	6
MS453-10S	1-piece EMI/RFI Shield	Tin-Steel	45.3	16.2	6
MS466-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	47.2	17.9	4
MS466-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	46.6	17.3	5
MS466-10S	1-piece EMI/RFI Shield	Tin-Steel	46.6	17.3	5
MS473-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	47.9	23.9	3.5
MS473-10CP	2-piece EMI/RFI Shield COVER	Tin-Steel	47.9	23.9	3.5

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS473-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	47.3	23.3	5.3
MS473-10S	1-piece EMI/RFI Shield	Tin-Steel	47.3	23.3	5.3
MS477-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	48.3	18.8	3
MS477-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	47.7	18.2	4
MS477-10S	1-piece EMI/RFI Shield	Tin-Steel	47.7	18.2	4
MS483-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	48.9	44.9	4
MS483-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	48.3	44.3	4.4
MS483-10S	1-piece EMI/RFI Shield	Tin-Steel	48.3	44.3	4.4
MS511-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	51.7	26.3	4
MS511-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	51.1	25.7	6.5
MS511-10S	1-piece EMI/RFI Shield	Tin-Steel	51.1	25.7	6.5
MS511-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	51.7	39	4
MS511-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	51.1	38.4	6.5
MS511-20S	1-piece EMI/RFI Shield	Tin-Steel	51.1	38.4	6.5
MS513-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	51.9	27.1	3.5
MS513-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	51.3	26.5	9.5
MS513-10S	1-piece EMI/RFI Shield	Tin-Steel	51.3	26.5	9.5
MS520-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	52.6	27.3	3.5
MS520-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	52	26.7	6
MS520-10S	1-piece EMI/RFI Shield	Tin-Steel	52	26.7	6
MS544-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	55	24.5	5
MS544-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	54.4	23.9	7.5
MS544-10S	1-piece EMI/RFI Shield	Tin-Steel	54.4	23.9	7.5
MS544-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	55	24.5	3.5
MS544-20CP	2-piece EMI/RFI Shield COVER	Tin-Steel	55	24.5	3.5
MS544-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	54.4	23.9	13.5
MS544-20S	1-piece EMI/RFI Shield	Tin-Steel	54.4	23.9	13.5
MS548-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	55.4	41.4	4
MS548-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	54.8	40.8	11

MS P/N.	Item Description	Material	Ext. Dimensions (mm)		
			L	W	H
MS548-10S	1-piece EMI/RFI Shield	Tin-Steel	54.8	40.8	11
MS570-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	57.6	31.6	3.5
MS570-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	57	31	6
MS570-10S	1-piece EMI/RFI Shield	Tin-Steel	57	31	6
MS585-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	59.1	50.3	3
MS585-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	58.5	49.7	4.7
MS585-10S	1-piece EMI/RFI Shield	Tin-Steel	58.5	49.7	4.7
MS593-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	59.9	21.2	2.5
MS593-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	59.3	20.6	2.8
MS593-10S	1-piece EMI/RFI Shield	Tin-Steel	59.3	20.6	2.8
MS593-20C	2-piece EMI/RFI Shield COVER	Tin-Steel	59.9	21.2	3
MS593-20F	2-piece EMI/RFI Shield FRAME	Tin-Steel	59.3	20.6	5.7
MS593-20S	1-piece EMI/RFI Shield	Tin-Steel	59.3	20.6	5.7
MS595-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	60.1	51	2.5
MS595-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	59.5	50.4	3.2
MS595-10S	1-piece EMI/RFI Shield	Tin-Steel	59.5	50.4	3.2
MS631-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	63.5	35.9	2.5
MS631-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	63.1	35.5	2.8
MS631-10S	1-piece EMI/RFI Shield	Tin-Steel	63.1	35.5	2.8
MS638-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	64.4	36.9	4
MS638-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	63.8	36.3	11
MS638-10S	1-piece EMI/RFI Shield	Tin-Steel	63.8	36.3	11
MS737-10C	2-piece EMI/RFI Shield COVER	Tin-Steel	74.3	28.7	3
MS737-10F	2-piece EMI/RFI Shield FRAME	Tin-Steel	73.7	28.1	2.9
MS737-10S	1-piece EMI/RFI Shield	Tin-Steel	73.7	28.1	2.9

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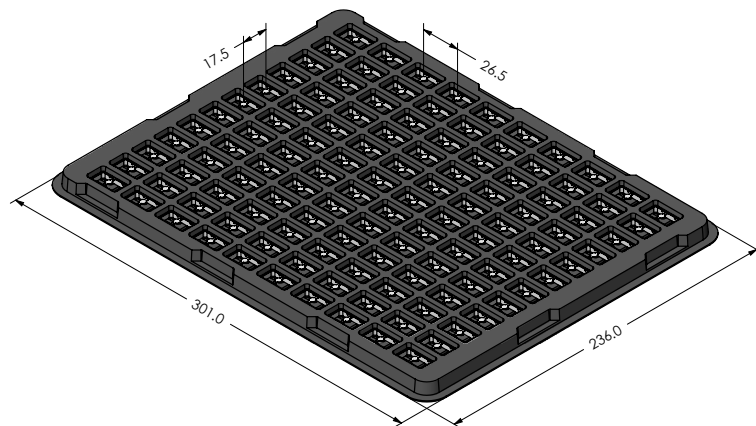
Typical PCB Shielding Effectiveness



[Typical performance of 51.1mm x 38.4mm EMI/RFI shield as reference]

Masach™ Regular SMD Packing Trays

MS210-10F / SMD Packing Tray



Storage & Handling

Materials Specification: Cold Reduced Electrolytic Tinplate Steel Tinplate Standard: TS275E8.4/8.4 EN 10202:2001

The materials used to fabricate these shields are based on mild steel with less than 0.12% Carbon and no more than 1% alloying elements and naturally occurring impurities. Major shielding elements are thus ferrous and tin. The thin resultant layer of tin enables shields to be easily soldered to PC boards as well as to resist corrosion during the assembly process. Tin plate shields offer the most cost effective shielding protection provided the following care is taken during storage and handling:

1. Do not pass these components through a salt bath test, they are not designed for such severe treatment. Alternate materials (albeit more expensive) are available.
2. Frames should be left in the package trays until assembly to preserve shield planarity.
3. Store in a cool dry place and avoid water or other liquids from coming into contact with shields.
4. Mild scratching and scuffs are natural for processed shields from pre-plated material. Protective films can be ordered especially for unblemished finish of covers.
5. Extremely thin film of oil may cover some shields. This does affect soldering and need not be removed.

Tinplate shields constitute over 85% of the materials used in the Masach production program and have been proven effective in their respective applications.

Materials Specification: Cold Reduced Nickel Silver Alloy Strip Tinplate Standard: UNS C77000 / UNS C73500

Chemical Composition 55% Copper, 27% Zinc And 18% Ni. Major shielding elements in this alloy are copper and nickel. Reflow temperatures are slightly higher than tin plate components and the use of suitable fluxes are needed to avoid excessive oxidation.

Nickel Silver shields do not require extra plating due to their good solder ability, attractive finish and corrosion resistance.

1. Do not pass these components through a salt bath test, they are not designed for such severe treatment. Alternate materials (albeit more expensive) are available.
2. Frames should be left in the package trays until assembly to preserve shield planarity.
3. Store in a cool dry place and avoid water or other liquids from coming into contact with shields.
4. Mild scratching and scuffs are natural for processed shields from pre-plated material. Protective films can be ordered especially for unblemished finish of covers.
5. Extremely thin film of oil may cover some shields. This does affect soldering and need not be removed.

Nickel Silver shields complement the Masach production programme and have proven effective in their respective applications.

Global Product Availability

Global Recognition



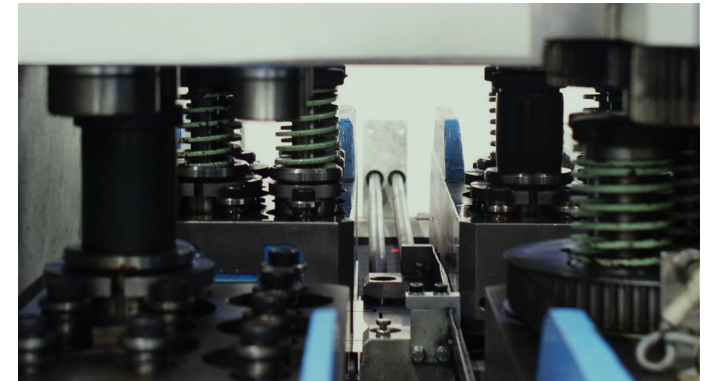
We continue to develop innovative products utilizing new manufacturing techniques, serving our ever-growing network of worldwide distributors and customers.

ISO 9001:2015 Quality Assurance



We provide our customers with highest quality products and timely delivery, managed by a state of the art ERP system in accordance with ISO 9001:2015 quality standards.

Green Policy



RoHS & Reach Compatible



We use only fabricated materials that are RoHS and Reach compatible, with standards continually updated. COC of base material used is available upon request.

Scrap and Discarded Material

All material scrap resultant from the fabrication process is gathered and stored in separate bins for subsequent recycling. We pride ourselves in achieving 100% recycling of all metallic waste. Plastic sheet scrap resultant from the vacuum form process is 100% recycled via the raw material provider. We encourage our customers to return the vacuum form package trays and packing cartons for future recycling.

Environment

Our modern fabrication plant and facilities are surrounded by trees, shrubs and flower beds. Water condensed from the plant's air conditioners serve to water our gardens, requiring no additional irrigation.



Masach™

Setting the **Standard** for **Shielding**.™

Where To Buy?

Contact your local distributor
or shop online



Explore More

View our wide range of Drawn-Seamless EMI/RFI Shields



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